

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAUL KLOCEK

Appeal No. 1997-3487
Application No. 08/473,420

ON BRIEF

Before GARRIS, PAK, and TIMM, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 7-12, which are all of the claims pending in this application.

THE INVENTION

Appellant's invention relates to a composition containing a doped group III-V compound having a low level of carbon and impurities. Claim 7 is illustrative:

7. A composition of matter for use as an optical window which:

(a) consists essentially of a compound taken from the class consisting of group III-V compounds;

(b) has not more than about 1 part per million impurities; and

(c) has less than about 1×10^{15} atoms/cc carbon;

(d) said group III-V compound being doped with a dopant element taken from the class consisting of shallow donors;

(e) said composition of matter for use as an optical window being transmissive to infrared frequencies in the range of from about 1 micron to about 14 microns and being relatively opaque to substantially all frequencies above about 14 microns and from about 1 micron to about x-ray frequencies.

THE REFERENCES RELIED UPON

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

McNeely et al. (McNeely)	3,533,967	Oct. 13, 1970
Bult et al. (Bult)	4,585,511	Apr. 29, 1986

THE REJECTIONS

Claims 7-12 stand rejected under 35 U.S.C. § 112, first paragraph as not supported by the originally filed specification. Claims 7-12 stand rejected under 35 U.S.C. § 103 as being unpatentable over McNeely in view of Bult.

OPINION

We reverse both the rejection made under 35 U.S.C. § 112, first paragraph and the rejection made under 35 U.S.C. § 103.

The Rejection under 35 U.S.C. § 112, First Paragraph

The examiner rejects the claims on the basis that there is no support in the original specification for a composition which has not more than about 1 part per million (1 ppm) impurities as recited in claim 7 (Answer, pages 2-3). The examiner indicates that the range recited in the claim is broader than the range originally recited in the specification because of the use of the word “about” in the claim.

While it is true that the specification at page 8, lines 18-19 does not use the word “about” when describing an impurity level of 1 ppm or less, we note that original claim 7 sets forth the composition as having “less than about 1×10^7 parts impurities”. We note that 1×10^7 parts, when expressed in parts per million (ppm), is equal to 10 ppm¹. Not only does original claim 7 use the term “about” as pointed

¹We note that appellant equates 1×10^7 parts to 1 ppm in the argument made in the Reply Brief at page 1. This seems to be in error as dividing 1×10^7 by 1×10^6 in order to convert parts to parts

out by appellant (Brief, page 4), but the originally claimed range, less than about 10 ppm, fully encompasses the now claimed range of less than about 1 ppm. The now claimed range is not broader, but is narrower than that originally claimed. The claims as filed are part of the original disclosure and may provide or contribute to compliance with the written description requirement of Section 112.

Hyatt v. Boone, 146 F.3d 1348, 1352,

47 USPQ2d 1128, 1130 (Fed. Cir. 1998), *cert. denied*, 119 S. Ct. 1032 (1999); *In re Anderson*,

471 F.2d 1237, 176 USPQ 331, 332 (CCPA 1973). Original claim 7, makes clear that appellant did not regard the invention as limited to a composition strictly having a total impurity content of 1 ppm or less, but that higher levels up to about 10 ppm were contemplated.

The function of the written description requirement is to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed. *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). It is not necessary for the original disclosure to describe the claim limitations exactly. The description need only be clear enough that those of ordinary skill in the art will recognize from the disclosure that applicant invented subject matter including those limitations. *Id.* When the issue is a difference in ranges, mere comparison of the ranges is not enough. One must determine whether the original disclosure conveys to those skilled in the art that the applicant invented the subject matter of the later filed claims. *Wertheim*, 541 F.2d at 263, 191

per million (ppm) gives a result of 10 ppm.

USPQ at 97. Furthermore, the initial burden is on the examiner to present evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. *Id.* It is sometimes possible for the examiner to meet that burden by simply pointing out that the claim reads on embodiments outside the scope of the original description.² See *Wertheim*, 541 F.2d at 263-64, 191 USPQ at 97 (“By pointing to the fact that claim 1 reads on embodiments outside the scope of the description, the PTO has satisfied its burden.”). However, in the present case, the original disclosure contains a broader disclosure which fully encompasses the claimed range. In such a situation, the examiner must present sufficient reasons to doubt that the broader described range also describes the narrower claimed range. *Wertheim*, 541 F.2d at 264, 191 USPQ at 98. The examiner has presented no such reasoning. Therefore, no *prima facie* case of unpatentability has been established on the basis of a lack of written description.

²It is, however, not always the case that there will be a lack of written description in a case in which “about” is added to the recitation of a range. See, for instance, *Eiselstein v. Frank*, 52 F.2d 1035, 34 USPQ2d 1467 (Fed. Cir. 1995) in which the tenor of the original disclosure indicated approximation for various element percentages for an alloy composition and thus adding “about” to a range disclosed in the specification as 45-55% was held to be supported by the original disclosure.

The Rejection under 35 U.S.C. § 103

The examiner rejects claims 7-12 as unpatentable over McNeely in view of Bult.

The rejection is based in part on the finding that Bult “teaches the carbon concentrations within the claimed range, by using the same process as shown in the specification.” (Answer, page 4). The examiner concludes that because the prior art grows the crystal in the same way as the appellant, it follows that the composition inherently has the same impurity level as claimed. (*Id.*) The examiner bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). It is true that where the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden has sometimes been found to have been met such that the burden was shifted to the applicant to prove that the prior art product did not, in fact, inherently possess the characteristics of the claimed product. *See In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977). However, before the applicant can be put to the burdensome task of proving his or her product is different, the examiner must provide a sufficient level of evidence or scientific reasoning which establishes the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art product.

Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 USPQ2d 1788, 1789 (Bd. Pat. App. & Int. 1986).

In the present case, the examiner states that the process of making the GaAs crystal is the same. The appellant, however, points out that the references do not employ the same growth process as appellant (Reply Brief, page 2). Comparing the processes of the references and that described in the specification we note several differences. For instance, McNeely uses a quartz crucible whereas the specification describes the use of a graphite crucible with a soft compliant carbon cloth with low levels of impurities covering the bottom of the crucible. The examiner has offered no explanation with respect to the affect of using a quartz crucible on impurity level nor the affect of the other process differences, on the resulting product. We, therefore, conclude that the examiner has not established a *prima facie* case of unpatentability under 35 U.S.C. § 103 with respect to claims 7-12.

CONCLUSION

To summarize, we reverse the rejection of claims 7-12 under 35 U.S.C. § 112, first paragraph and the rejection of claims 7-12 under 35 U.S.C. § 103.

REVERSED

BRADLEY R. GARRIS
Administrative Patent Judge

CHUNG K. PAK
Administrative Patent Judge

CATHERINE TIMM
Administrative Patent Judge

)
)
)
)
)
) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES
)
)
)
)
)

Appeal No. 1997-3487
Application No. 08/473,420

Page 9

Jerry W. Mills
Baker & Botts
2001 Ross Avenue
Dallas, TX 75201